

REMARKS

Applicant responds to the Final Office Action of June 10, 2008 with this amendment.

Claims 1-19 are pending in the application. Claims 1-3 have been rejected. Claims 1 and 3 have been changed, and claims 4-19 have been added by this amendment. The amendments and new claims are fully supported throughout the specification.

Applicant has amended claims 1 and 3. Applicant is not conceding in this application that the original claims are not patentable over the art cited by the Examiner, as the present claim amendments and cancellations are only for facilitating expeditious prosecution. Applicant respectfully reserves the right to pursue the original and other claims in one or more continuations and/or divisional patent applications.

Claim Objections

The Examiner objected to claims 1 and 3 because of informalities. These claims have been corrected as set forth above.

Rejections — 35 USC §112

The Examiner rejected claims 1-3 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner states:

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

An omitted structural cooperative relationship results from the claimed subject matter: "*a display brightness in a certain window displayed on a screen o/the display unit*" (in line 6); "*a screen brightness of the display unit*" (in line 8); and "*the display brightness*" (in line 10).

It would be unclear to one having ordinary skill in the art what "*the display brightness*" limitation is intended to refer to...

For clarity, Applicant has amended "display brightness" to be "window brightness," indicating the brightness in the particular window. The "screen brightness" indicates the brightness of the screen.

The Examiner also states:

An omitted structural cooperative relationship results from (he claimed subject matter: "*to improve a visibility o/the display unit 10 an user*" (in line 10). It would be unclear to one having ordinary skill in the art in what way, manner, or fashion "*the visibility of the display unit to an user*" is to be "*improved*."

Claim 1 recites the limitation "*to improve a visibility of the display unit to an user*" (in line 10). There is insufficient antecedent basis for this limitation in the claim...

The term "*to improve a visibility o/the display unit 10 on user*" (in claim I, line 10) is a relative term which renders the claim indefinite...

For clarity, Applicant has amended claim 1 to remove the phrase, "to change the display brightness to improve a visibility of the display unit to an user viewing the display unit."

The Examiner also states:

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

An omitted structural cooperative relationship results from the claimed subject matter: "*a liquid crystal display unit*" (in line 1); "*a liquid crystal display screen*" (in line 2); "*a brightness of the back-light*" (in line 4); and "*a display brightness*" (in line 6).

It would be unclear to one having ordinary skill in the art what "*the display brightness*" limitation is intended to refer to...

The "liquid crystal display unit" of the preamble indicates the entire apparatus of claim 3, while the "liquid crystal display screen" is one element of the apparatus. For clarity, Applicant has amended "display brightness" to be "area brightness," indicating the brightness of the specific area displayed on the screen. Thus, the brightness of the back-light controls the lighting of the liquid crystal display screen.

The Examiner also states:

An omitted structural cooperative relationship results from the claimed subject matter: *"to improve a visibility of the display unit to an user"* (in line 12). It would be unclear to one having ordinary skill in the art in what way, manner, or fashion *"the visibility o/the display unit to an user"* is to be *"improved."*

Claim 3 recites the limitation *"to improve a visibility o/the display unit to an user"* (in line 12). There is insufficient antecedent basis for this limitation in the claim...

The term *"to improve a visibility of the display unit to an user"* (in claim 3, line 12) is a relative term which renders the claim indefinite...

For clarity, Applicant has amended claim 3 to remove the phrase, "to change the display brightness and to improve a visibility of the display unit to an user viewing the display unit."

In view of the foregoing, Applicant respectfully requests that the rejection under 35 U.S.C. 112, second paragraph, be withdrawn.

Rejections — 35 USC §102(e)

The Examiner rejected claims 1-3 under 35 U.S.C. 102(e) as being anticipated by Evanicky et al., US Patent No. 6,611,249 ("Evanicky"). Applicant has amended claim 1 to clarify the invention and expedite prosecution.

Evanicky generally discloses a system for controlling the white balance and providing gamma correction (Abstract). More particularly, Evanicky discloses that one or more images of known RGB values are displayed on the LCD screen in a test window 1140, and a luminance sensor 800b is placed at the test window to measure the luminance level of each RGB primary displayed (18:52-56, 20:15-24). Luminance data of the LCD panel is sent back to the host computer to infer a color temperature of the LCD screen (18:56-65). The color temperature is compared to a reference color temperature, and relative intensities of the backlight sources are adjusted according to the comparison (19: 7-12). Grayscale ramps are determined for each of the RGB primaries by measuring equally spaced grayscale points to construction a gamma curve,

which is used to determined a gamma value of the LCD display screen, and a gamma transfer function. As a result, a desired gamma value can be obtained on the screen (19:44-47).

Independent claim 1, as amended, recites a computer system including a process that executes to determine a window brightness in a particular window displayed on a screen of the display unit. The window brightness is determined by monitoring a draw signal issued to the display unit, the draw signal used to control the display unit to display the particular window. The window brightness in the particular window is determined based the draw signal and is not based on sensing physical output of the screen of the display unit. The display unit is controlled so as to change a screen brightness of the display unit according to the determined window brightness in the particular window.

Evanicky does not disclose or suggest a window brightness, of a particular window, determined by monitoring a draw signal issued to the display unit and determining from the draw signal the window brightness in the particular window as recited in claim 1. Evanicky discloses displaying a test window 1140 in a GUI, where images are displayed in the test window and measured by a light sensing device 800 placed on the screen for a color profiling or calibration process (20: 15-24). Backlight intensities for the screen are adjusted according to a comparison of color temperature based on luminance levels sensed by the sensor. Thus, Evanicky does not disclose or suggest the window brightness in the particular window determined based the draw signal and not based on sensing physical output of the display unit. Evanicky uses a sensor to detect physical output luminances of the screen, and does not monitor a draw signal as recited. For example, col. 19, line 48 to col. 20, line 24 of Evanicky clearly describe using a sensor to detect the screen's physical output of luminance levels to determine how to control brightness, and do not disclose or suggest determining the window brightness based on the draw signal and not the physical output.

Applicant therefore believes that claim 1 is patentable over Evanicky.

Claim 2 is dependent on claim and are patentable over Evanicky for at least the same reasons as claim 1, and for additional reasons.

Independent claim 3 recites liquid crystal display unit including a brightness controller that receives a brightness control signal generated based on a determined area brightness in a specific area displayed on a subsection of the liquid crystal display screen. The area brightness is determined based on a draw signal issued to the liquid crystal display screen and not based on sensing physical output of the liquid crystal display unit, the draw signal used to control the liquid crystal display screen to display an image in the specific area. The image is selected from a plurality of images to be displayed on the liquid crystal display screen. The brightness of the back-light is changed according to the brightness control signal. Claim 3 is patentable over Evanicky for at least similar reasons to those explained above for claim 1, including brightness in a specific area determined based on a draw signal used to control the liquid crystal display screen to display an image in the specific area and not based on sensing physical output of the liquid crystal display unit.

Applicant therefore respectfully requests that the rejection of claims 1-3 under 35 U.S.C. 103(a) be withdrawn.

New Claims

New claims 4-19 are dependent on the above claims and patentable over Evanicky for at least the same reasons as explained above, and for additional reasons. For example, claim 4 recites that the window brightness in the particular window is determined based on at least one numerical parameter in the draw signal. Evanicky does not disclose or suggest a parameter as

recited. Claim 5 recites that determining the window brightness includes determining, from the at least one numerical parameter, each color displayed in the particular window, where the window brightness of the particular window is determined from said each color. Evanicky does not disclose or suggest determining color and brightness from a draw signal as recited.

Claim 6 recites that the window brightness is determined from said each color displayed in the particular window by converting each color to an associated gray scale value. Evanicky does not disclose or suggest this feature. For example, Evanicky's use of grayscale (19: 20-30) measures grayscale points with a sensor to determine a gamma value for luminance. This is not converting colors to grayscale, those colors obtained via a draw signal as recited in claims 4-6.

Claim 11 recites that the window brightness is not determined using a sensor to physically sense the physical output of the screen or the back-light, which is not disclosed or suggested by Evanicky. Claim 12 recites that the particular window is an active window, the active window having focus during the detection of the window brightness and being selected from a plurality of windows displayed on the screen, wherein only the active window has said focus. Evanicky does not disclose or suggest an active window, selecting from multiple windows, as the particular window for which a window brightness is determined.

New claims 13-19 are dependent on claim 3 and are patentable over Evanicky for at least similar to dependent claims 4-12 as explained above.

In view of the foregoing, Applicant submits that claims 1-19 are in condition for allowance.

Applicant respectfully requests reconsideration and allowance of the claims as now presented.

Should any unresolved issues remain, Examiner is invited to call Applicant's attorney at the telephone number indicated below.

Respectfully submitted,

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